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DATE: Monday, August 09, 2004

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<input type="checkbox"/>	L7	l2 and chelat\$	0
<input type="checkbox"/>	L6	L2 and chelating	0
		<i>DB=USPT; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L5	US-5012935-A.did.	1
<input type="checkbox"/>	L4	US-5238503-A.did.	1
		<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i>	
<input type="checkbox"/>	L3	L2 and (metallic contamination)	1
<input type="checkbox"/>	L2	L1 and decontaminat\$	13
<input type="checkbox"/>	L1	(wafer container) or (wafer carrier)	8119

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L2: Entry 12 of 13

File: DWPI

Nov 16, 1992

DERWENT-ACC-NO: 1992-429475

DERWENT-WEEK: 200321

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TITLE: Decontamination device for semiconductor wafer container having chamber for storing wafers - removes airborne particles in container using continuously filtered circulation gas flow, and releases adhered contamination particles from inner surface of container.

Equivalent Abstract Text (1):

The decontamination device includes a support/containment assembly for providing a sealed containment compartment. a gas flow assembly, mounted on the support/containment assembly for supplies and filters a continuous flow of circulation gas throughout the containment compartment. The gas flow assembly periodically directs a flow of blow-off gas towards the inner surfaces of the wafer container, whereby particles adhered to such surfaces will be released and entrained by the continuous flow of circulation gas.

Equivalent Abstract Text (2):

Manipulating assemblies, also mounted on the support/containment assembly manipulate the wafer container such that the chamber is in communication with the containment compartment. The assemblies also position the gas flow assembly within the chamber of the container and in close proximity to its inner surfaces.

Equivalent Abstract Text (3):

USE/ADVANTAGE - Decontaminating wafer container used in semiconductor device fabrication, minimises contamination in wafer container.

Standard Title Terms (1):

DECONTAMINATE DEVICE SEMICONDUCTOR WAFER CONTAINER CHAMBER STORAGE WAFER REMOVE AIRBORNE PARTICLE CONTAINER CONTINUOUS FILTER CIRCULATE GAS FLOW RELEASE ADHERE CONTAMINATE PARTICLE INNER SURFACE CONTAINER

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☐ 11. Document ID: US 5030057 A

Using default format because multiple data bases are involved.

L2: Entry 11 of 13

File: USPT

Jul 9, 1991

US-PAT-NO: 5030057

DOCUMENT-IDENTIFIER: US 5030057 A

TITLE: Semiconductor wafer transferring method and apparatus and boat for thermal treatment of a semiconductor wafer

DATE-ISSUED: July 9, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nishi; Hironobu	Sagamihara			JP
Yamaga; Kenichi	Sagamihara			JP
Asano; Takanobu	Yokohama			JP
Sawado; Kazutoshi	Sagamihara			JP
Fumoto; Masashi	Sagamihara			JP
Ito; Shozo	Sagamihara			JP
Mochizuki; Yoshinori	Hachioji			JP

US-CL-CURRENT: 414/780; 118/500, 414/273, 414/416.09, 414/936, 901/47

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KUMC	Drawn De
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☐ 12. Document ID: JP 04326545 A, US 5238503 A

L2: Entry 12 of 13

File: DWPI

Nov 16, 1992

DERWENT-ACC-NO: 1992-429475

DERWENT-WEEK: 200321

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Decontamination device for semiconductor wafer container having chamber for storing wafers - removes airborne particles in container using continuously filtered circulation gas flow, and releases adhered contamination particles from inner surface of container.

INVENTOR: PHENIX, R B; TANDY, W T

PRIORITY-DATA: 1991US-0682795 (April 9, 1991)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 04326545 A	November 16, 1992		013	H01L021/68
US 5238503 A	August 24, 1993		016	A47L015/00

INT-CL (IPC): A47L 15/00; H01L 21/02; H01L 21/68

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KUMC	Draw D
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☐ 13. Document ID: DE 4005542 A, US 5012935 A

L2: Entry 13 of 13

File: DWPI

Aug 30, 1990

DERWENT-ACC-NO: 1990-269020

DERWENT-WEEK: 199036

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TITLE: Carrier frame for semiconductor wafer holder - has stop cooperating with bottom edge of semiconductor wafer

INVENTOR: AIGO, S

PRIORITY-DATA: 1989JP-0021645 (February 27, 1989)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 4005542 A	August 30, 1990		000	
US 5012935 A	May 7, 1991		000	

INT-CL (IPC): A47G 19/08; H01L 21/68

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KUMC	Draw D
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Term	Documents
DECONTAMINATS	0
DECONTAMINAT	29
DECONTAMINATABILITY	1
DECONTAMINATABLE	19
DECONTAMINATANTS	2
DECONTAMINATE	6066
DECONTAMINATED	5666
DECONTAMINATED-AFTER	1
DECONTAMINATED-FROM	2
DECONTAMINATED-PREVIOUSLY	2

(L1 AND DECONTAMINAT\$).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	13
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☐ 1. Document ID: US 5238503 A

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L4: Entry 1 of 1

File: USPT

Aug 24, 1993

US-PAT-NO: 5238503

DOCUMENT-IDENTIFIER: US 5238503 A

**** See image for Certificate of Correction ****

TITLE: Device for decontaminating a semiconductor wafer container

DATE-ISSUED: August 24, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Phenix; Robert B.	Milton	VT		
Tandy; Winfield T.	Essex Junction	VT		

US-CL-CURRENT: 134/37; 134/167R, 15/304, 15/310, 15/316.1

Full	Title	Citation	Front	Review	Classification	Data	Reference			Claims	KMC	Draw D
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Term	Documents
US-5238503-A	1
US-5238503-AS	0
US-5238503-A.DID.USPT.	1
(US-5238503-A.DID.)USPT.	1

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☐ 1. Document ID: US 20030102015 A1

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L2: Entry 1 of 13

File: PGPB

Jun 5, 2003

PGPUB-DOCUMENT-NUMBER: 20030102015
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030102015 A1

TITLE: Wafer container washing apparatus

PUBLICATION-DATE: June 5, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Halbmaier, David L.	Shorewood	MN	US	
Gregerson, Barry	Deephaven	MN	US	

US-CL-CURRENT: 134/30; 134/167R, 134/171

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw D
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☐ 2. Document ID: US 20020046760 A1

L2: Entry 2 of 13

File: PGPB

Apr 25, 2002

PGPUB-DOCUMENT-NUMBER: 20020046760
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020046760 A1

TITLE: Wafer container washing apparatus

PUBLICATION-DATE: April 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Halbmaier, David L.	Shorewood	MN	US	

US-CL-CURRENT: 134/167R; 134/171

ABSTRACT:

h e b b g e e f e c h h b e f b e

The present invention is directed to a semi-conductor handling equipment cleaning method and apparatus configured for use with wafer carriers. The cleaning apparatus comprises a base portion having a first aperture and a second aperture. The base is configured to support the wafer carrier in sealing contact about the first aperture. A first fluidic circuit is provided for introducing a first cleaning fluid to the inner surface of the carrier. A second fluidic circuit is provided for introducing a second cleaning fluid to the outer surface of the carrier. The carrier forms a barrier with the base so that the cleaning media is isolated so as to substantially prevent the second fluid used to clean the exterior from communicating with the first fluid used to clean the interior of the carrier.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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3. Document ID: US 20020000184 A1

L2: Entry 3 of 13

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020000184

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020000184 A1

TITLE: ELAPSED TIME INDICATOR FOR CONTROLLED ENVIRONMENTS AND METHOD OF USE

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
PATON, ERIC	MORGAN HILL	CA	US	
MANI, BALARAMAN	CUPERTINO	CA	US	

US-CL-CURRENT: 116/206; 116/201, 368/327

ABSTRACT:

Exposure time is determined by a device which is sensitive to an environmental substance in a controlled environment. Embodiments include a humidity sensitive timer treated with a cobalt salt which changes colors after a certain exposure time within the controlled environment. Elapsed time is measured by exposing the timer to a humidity controlled environment and monitoring the timer for a change in color.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw D
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4. Document ID: US 6536370 B2

L2: Entry 4 of 13

File: USPT

Mar 25, 2003

US-PAT-NO: 6536370

DOCUMENT-IDENTIFIER: US 6536370 B2

**** See image for Certificate of Correction ****

TITLE: Elapsed time indicator for controlled environments and method of use

DATE-ISSUED: March 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Paton; Eric	Morgan Hill	CA		
Mani; Balaraman	Cupertino	CA		

US-CL-CURRENT: 116/206; 374/102

ABSTRACT:

Exposure time is determined by a device which is sensitive to an environmental substance in a controlled environment. Embodiments include a humidity sensitive timer treated with a cobalt salt which changes colors after a certain exposure time within the controlled environment. Elapsed time is measured by exposing the timer to a humidity controlled environment and monitoring the timer for a change in color.

14 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWC	Draw De
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☐ 5. Document ID: US 6346741 B1

L2: Entry 5 of 13

File: USPT

Feb 12, 2002

US-PAT-NO: 6346741

DOCUMENT-IDENTIFIER: US 6346741 B1

TITLE: Compositions and structures for chemical mechanical polishing of FeRAM capacitors and method of fabricating FeRAM capacitors using same

DATE-ISSUED: February 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Van Buskirk; Peter C.	Newtown	CT		
Russell; Michael W.	Norwalk	CT		
Bilodeau; Steven M.	Oxford	CT		
Baum; Thomas H.	New Fairfield	CT		

US-CL-CURRENT: 257/664; 257/787, 257/788

ABSTRACT:

An integrated circuit structures formed by chemical mechanical polishing (CMP) process, which comprises a conductive pathway recessed in a dielectric substrate, wherein the conductive pathway comprises conductive transmission lines encapsulated

in a transmission-enhancement material, and wherein the conductive pathway is filled sequentially by a first layer of the transmission-enhancement material followed by the conductive transmission line; a second layer of transmission-enhancement material encapsulating the conductive transmission line and contacting the first layer of the transmission-enhancement material, wherein the transmission-enhancement material is selected from the group consisting of high magnetic permeability material and high permittivity material. Such integrated circuit structure may comprise a device structure selected from the group consisting of capacitors, inductors, and resistors. Preferably, the transmission-enhancement material comprises MgMn ferrites, MgMnAl ferrites, barium strontium titanate, lead zirconium titanate, titanium oxide, tantalum oxide, etc.

17 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 6. Document ID: US 6248177 B1

L2: Entry 6 of 13

File: USPT

Jun 19, 2001

US-PAT-NO: 6248177

DOCUMENT-IDENTIFIER: US 6248177 B1

TITLE: Method of cleaning a wafer carrier

DATE-ISSUED: June 19, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Halbmaier; David L.	Shorewood	MN		

US-CL-CURRENT: 134/2; 134/170, 134/22.1, 134/22.12, 134/22.18, 134/23, 134/24, 134/25.1, 134/25.4, 134/33, 134/36, 134/902

ABSTRACT:

A method of cleaning a wafer carrier utilizes two isolated fluidic circuits. The wafer carrier having an interior and an exterior. The carrier is sealingly attached to a cleaning apparatus having separate isolated areas, one isolated area including the interior and the other the exterior. Fluid of the first fluidic circuit is sprayed on the interior and fluid from the second circuit is sprayed on the exterior reducing cross contamination.

7 Claims, 36 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 12

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 7. Document ID: US 6010009 A

L2: Entry 7 of 13

File: USPT

Jan 4, 2000

US-PAT-NO: 6010009

DOCUMENT-IDENTIFIER: US 6010009 A

TITLE: Shipping and transport cassette with kinematic coupling

DATE-ISSUED: January 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peterson; Kelly	Savage	MN		
Wiseman; Brian	Oakdale	MN		
Gallagher; Gary	Colorado Springs	CO		
Gregerson; Barry	Deephaven	MN		

US-CL-CURRENT: 206/711; 206/454, 211/41.18

ABSTRACT:

A cassette (10) for storing a plurality of items in a parallel registration is disclosed. The cassette is specifically designed to be lightweight and is reinforced (50, 52, 54) to prevent warpage, bending, flexing or breaking of the cassette. Means (66, 68, 70) for indexing the cassette to a surface for precise insertion and removal of items are also described.

12 Claims, 8 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 7

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	K00C	Draw Da
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☐ 8. Document ID: US 5976928 A

L2: Entry 8 of 13

File: USPT

Nov 2, 1999

US-PAT-NO: 5976928

DOCUMENT-IDENTIFIER: US 5976928 A

**** See image for Certificate of Correction ****

TITLE: Chemical mechanical polishing of FeRAM capacitors

DATE-ISSUED: November 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kirlin; Peter S.	Newtown	CT		
Van Buskirk; Peter C.	Newtown	CT		

US-CL-CURRENT: 438/240; 438/3, 438/387, 438/396

ABSTRACT:

A method of fabricating a ferroelectric capacitor structure by sequentially depositing a bottom electrode layer, a ferroelectric layer and a top electrode layer on a base structure, optionally with deposition of a layer of a conductive barrier material beneath the bottom electrode layer, to form a capacitor precursor structure, and planarizing the capacitor precursor structure by chemical mechanical polishing to yield the ferroelectric capacitor structure, e.g., a stack capacitor or trench capacitor. The process is carried out without dry etching of the electrode layers or dry etching of the ferroelectric layer, to yield ferroelectric capacitors having a very small feature size, as for example between 0.10 and 0.20 .mu.m.

69 Claims, 16 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Draw De
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☐ 9. Document ID: US 5238503 A

L2: Entry 9 of 13

File: USPT

Aug 24, 1993

US-PAT-NO: 5238503

DOCUMENT-IDENTIFIER: US 5238503 A

**** See image for Certificate of Correction ****TITLE: Device for decontaminating a semiconductor wafer container

DATE-ISSUED: August 24, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Phenix; Robert B.	Milton	VT		
Tandy; Winfield T.	Essex Junction	VT		

US-CL-CURRENT: 134/37; 134/167R, 15/304, 15/310, 15/316.1

ABSTRACT:

A decontamination device for a wafer container having a chamber for storing semiconductor wafers and inner surfaces surrounding such chamber is provided. The device includes a support/containment assembly for providing a substantially sealed containment compartment and a gas flow assembly, mounted on the support/containment means, for supplying and filtering a substantially continuous flow of circulation gas throughout the containment compartment. Additionally, the gas flow assembly periodically directs a flow of blow-off gas towards the inner surfaces of the wafer container whereby particles adhered to such surfaces will be released and entrained by the continuous flow of circulation gas. Manipulating assemblies, also mounted on the support/containment means manipulate the wafer container whereby such chamber is in communication with the containment compartment. The assemblies also position the gas flow assembly within the chamber of the container and in close proximity to

its inner surfaces.

14 Claims, 12 Drawing figures
Exemplary Claim Number: 14
Number of Drawing Sheets: 5

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Drawn Ds
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☐ 10. Document ID: US 5131799 A

L2: Entry 10 of 13

File: USPT

Jul 21, 1992

US-PAT-NO: 5131799
DOCUMENT-IDENTIFIER: US 5131799 A

TITLE: Semiconductor wafer transferring apparatus and boat for thermal treatment of a semiconductor wafer

DATE-ISSUED: July 21, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nishi; Hironobu	Sagamihara			JP
Yamaga; Kenichi	Sagamihara			JP
Asano; Takanobu	Yokohama			JP

US-CL-CURRENT: 414/416.09; 414/938, 414/940

ABSTRACT:

A wafer transferring method for transferring wafers between a cassette and a boat having grooves to hold the wafers, comprises the steps of providing an identification mechanism for positional alignment on the boat in advance, detecting the identification mechanism, and aligning the boat to a predetermined position based on a detection result and transferring the wafers from the cassette to the boat. A wafer transferring apparatus comprises a loading device for extracting wafers from a cassette and transferring the wafers onto a boat, a detection device for detecting an identification section provided on the boat in order to identify a wafer transferring position on the boat, a control device for acquiring the wafer transferring position on the boat based on a detection result attained from the detection device and controlling a mutual position between the boat and the cassette to come to a predetermined position.

7 Claims, 19 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 13

Full	Title	Citation	Front	Review	Classification	Date	Reference			Claims	KWIC	Drawn Ds
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Term	Documents
DECONTAMINAT\$	0
DECONTAMINAT	29
DECONTAMINATABILITY	1
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DECONTAMINATANTS	2
DECONTAMINATE	6066
DECONTAMINATED	5666
DECONTAMINATED-AFTER	1
DECONTAMINATED-FROM	2
DECONTAMINATED-PREVIOUSLY	2
DECONTAMINATED-SOIL	1
(L1 AND DECONTAMINAT\$).PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD.	13

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